## REMARKS

This is a complete and timely response to the non-final Office Action, sent electronically, on February 25, 2009. Claims 1, 3, 5-9, 14 and 15 are pending in the application. Claims 2, 4, 10, 12 and 13 are canceled. Independent claims 1 and 9 are amended. The subject matter of amended claims 1 and 9 is supported in at least FIG. 3 and paragraph [0029] of Applicants' originally filed specification. Accordingly, no new matter is added. In light of the foregoing amendments and following remarks, Applicants request reconsideration of the application and pending claims.

### Claim Rejections Under 35 USC § 103 – Claims 1-11

#### A. Statement of the Rejections

Claims 1, 3, 5, 9, 14 and 15 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,760,391 to Alb *et al.* (hereinafter, *Alb*), U.S. Patent No. 5,801,781 to Hiroshima et al. (hereafter *Hiroshima*), U.S. Patent No. 7,133,441 to Barlev et al. (hereafter *Barlev*), in further view of U.S. Patent No. 5,808,760 to Gfeller (hereafter *Gfeller*).

Claim 6 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Alb*, *Hiroshima*, *Barlev* and *Gfeller*, as applied to claim 1, in further view of U.S. Patent No. 6,690,650 to Stener, hereafter *Stener* and the Applicants Admitted Prior Art (*AAPA*) (Brief Description of Related Development, page 2, lines 1-7.).

Claim 7 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Alb*, *Hiroshima*, *Barlev* and *Gfeller*, as applied to claim 1, in further view of *Stener*.

Claims 8 and 11 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Alb*, *Hiroshima*, *Barlev* and *Gfeller*, as applied to claims 1 and 9, in further view of U.S. Patent No. 6,647,058 to Bremer, hereafter *Bremer*.

#### B. Discussion of the Rejections

Applicants' independent claims 1 and 9, as amended, include at least one feature that is not found in the proposed combinations.

For a claim to be properly rejected under 35 U.S.C. § 103, the Examiner should set forth in the Office Action the relevant teachings of the prior art relied upon, the difference or differences in the claim over the applied reference(s), the proposed modification necessary to arrive at the claimed subject matter and an explanation as to why the claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made. It is well settled law that a *prima facie* case of obviousness must teach or suggest all the claimed limitations.

Regarding the requirement to teach or suggest all the claim limitations, MPEP § 2143.03 states "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Accordingly, the proposed combinations must disclose, teach or suggest each element of the claimed invention. Applicants' independent claims 1 and 9, as amended, each include at least one element or feature that is not disclosed, taught, or suggested by the proposed combinations. Applicants will address independent claims 1 and 9 separately as each claim is separately patentable over the cited art of record.

**1. Claims 1, 3, 5 and 14**

Applicants' claim 1, as amended, is directed to a rate adaptive system for optical communication networks which includes at least "an identification mechanism that identifies the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

Applicants respectfully submit that the asserted combination does not disclose, teach or suggest at least the aforementioned feature coupled with the other elements of claim 1.

In contrast with Applicants' claimed rate adaptive system for optical communication networks, the proposed combination of *Alb*, *Hiroshima*, *Barlev* and *Gfeller* is entirely silent regarding Applicants' claimed rate adaptive system.

*Alb* (FIGs. 1, 3 and 4) shows various embodiments of a system that couples a central office 20 to customer premises (CPE 42, CPE 44 and CPE 46) via respective links 12, 14 and 16. The link 12, in the embodiments illustrated in FIG. 3 and FIG. 4, is clearly shown as a twisted-pair of copper wires typical in the communication channel between a central office and customer premises. *Alb*, column 4, lines 20-24, indicates that links 12, 14 and 16 can be made up of wider-bandwidth physical media such as coaxial cable, optical fiber and radio.

*Alb* is cited for the alleged disclosure of an optical system capable of transmitting and receiving signals at a plurality of rates to each other. In this regard, the Office Action indicates that *Alb* suggests an optical system capable of transmitting and receiving signals at a plurality of rates to each other. The Office Action reaches this conclusion by stating that when "the CO and CPE are linked by the optical fiber, the transceivers in the CO and CPE are the optical transceivers."

The Office Action admits that *Alb* fails to disclose that an error condition is responsive to a failure to synchronize a received signal to a transmitted signal. See Office Action, page 4, fifth paragraph. In an effort to remedy the failure of *Alb* to disclose, teach or suggest each feature of Applicants' claimed system, *Hiroshima* is introduced for the alleged teaching that a data rate is adjusted by inserting invalid data which can be identified and ignored by a downstream process.

*Hiroshima* discloses an apparatus for converting motion picture streams in a first Motion Pictures Experts Group (MPEG) format to transport streams in a second MPEG format different from the first MPEG format.

*Barlev* is cited for the alleged disclosure of a mechanism in which the data rate is varied when a loss of synchronization occurs. The Office Action indicates that *Barlev* teaches that "by just monitoring the loss of synchronization, the procedure of rate change can be made simpler because a control channel is no longer needed and the overhead associated with auto-negotiation methods can be avoided."

The Office Action admits that the combination of *Alb*, *Hiroshima* and *Barlev* fails to disclose that a rate is lowered according to a predefined percentage of said initial rate. See Office Action, page 5, second paragraph. In an effort to remedy the failure of the combination of *Alb*, *Hiroshima* and *Barlev* to disclose, teach or suggest each feature of Applicants' claimed system, *Gfeller* is introduced for the alleged

teaching of a system having four predetermined data rates wherein an initial rate is lowered according to a predefined percentage of an initial rate in response to a failure.

Each of *Alb*, *Hiroshima*, *Barlev* and *Gfeller* are separately silent and the proposed combination does not suggest a rate adaptive system including "an identification mechanism that identifies the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network." Thus, the proposed combination fails to disclose, teach or suggest each feature of Applicants' claimed rate adaptive system. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. § 103 are respectfully requested.

Dependent claims 3, 5 and 14 depend directly from allowable independent claim 1 and include all the features of claim 1. Thus, dependent claims 3, 5 and 14 are allowable for at least the reason that these claims depend from allowable independent claim 1. *In re Fine,* 837 F.2d 1071, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1998).

Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claims 3, 5 and 14 under 35 U.S.C. § 103 are respectfully requested.

**2. Claims 9, 11 and 15**

Applicants' claim 9, as amended, is directed to a rate adaptive method for operating an optical communication network which includes at least the step of "identifying the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

Applicants respectfully submit that the asserted combination does not disclose, teach or suggest at least the aforementioned step in combination with the other recited steps of claim 9.

In contrast with Applicants' claimed rate adaptive system for optical communication networks, the proposed combination of *Alb*, *Hiroshima*, *Barlev* and *Gfeller* is entirely silent regarding Applicants' claimed method.

As shown above, *Alb* is cited for the alleged disclosure of an optical system capable of transmitting and receiving signals at a plurality of rates to each other.

*Hiroshima* discloses an apparatus for converting motion picture streams in a first Motion Pictures Experts Group (MPEG) format to transport streams in a second MPEG format different from the first MPEG format.

*Barlev* is cited for the alleged disclosure of a mechanism in which the data rate is varied when a loss of synchronization occurs.

*Gfeller* is introduced for the alleged teaching of a system having four predetermined data rates wherein an initial rate is lowered according to a predefined percentage of an initial rate in response to a failure.

Each of *Alb*, *Hiroshima*, *Barlev* and *Gfeller* are separately silent and the proposed combination does not suggest at least the step of "identifying the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network." Thus, the proposed combination fails to disclose, teach or suggest each feature of Applicants' claimed method. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of independent claim 9 under 35 U.S.C. § 103 are respectfully requested.

Dependent claims 11 and 15 depend directly from allowable independent claim 9 and include all the features of claim 9. Thus, dependent claims 11 and 15 are allowable for at least the reason that these claims depend from allowable independent claim 9. *In re Fine,* 837 F.2d 1071, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1998).

Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claims 11 and 15 under 35 U.S.C. § 103 are respectfully requested.

### 3. Claim 6

As shown above, the combined teachings of *Alb, Hiroshima*, *Barlev* and *Gfeller* do not teach all features of independent claim 1, as amended, from which claim 6 depends. *Alb, Hiroshima*, *Barlev* and *Gfeller* do not disclose, teach or suggest Applicants' claimed optical network system which comprises at least "an identification mechanism that identifies the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

*Stener* is cited for its alleged disclosure of setting an initial rate at the highest possible rate and upon detecting a link failure, adjusting the rate of transmission by an order of magnitude. *Stener* specifically teaches shifting from one physical interface

device operating at 100 MB/sec to a second physical interface device operating at 10 MB/sec in response to detected errors. Applicants respectfully submit that *Stener* does not add anything to the combination of *Alb, Hiroshima*, *Barlev* and *Gfeller* that would remedy the aforementioned deficiency.

*AAPA* is cited for the admission that fibre links that transport data at a rate of at least 10 Gb/s exist. Applicants respectfully submit that *AAPA* does not add anything to the combination of *Alb, Hiroshima*, *Barlev*, *Gfeller* and *Stener* that would remedy the aforementioned deficiency.

Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness for at least the reason that the combined teachings do not teach all features of dependent claim 6, which depends directly from claim 1 and includes all the features of claim 1. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of dependent claim 6 under 35 U.S.C. § 103 are respectfully requested.

**4. Claim 7**

As shown above, the combined teachings of *Alb, Hiroshima*, *Barlev* and *Gfeller* do not teach all features of independent claim 1, as amended, from which claim 7 depends. *Alb, Hiroshima*, *Barlev* and *Gfeller* do not disclose, teach or suggest Applicants' claimed optical network system which comprises at least "an identification mechanism that identifies the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

*Stener* is cited for its alleged disclosure of a system configured to operate in an optical Ethernet network. Applicants respectfully submit that *Stener* does not add anything to the combination of *Alb, Hiroshima*, *Barlev* and *Gfeller* that would remedy the aforementioned deficiency.

Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness for at least the reason that the combined teachings do not teach all features of dependent claim 7, which depends directly from claim 1 and includes all the features of claim 1. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of dependent claim 7 under 35 U.S.C. § 103 are respectfully requested.

**5. Claim 8**

As shown above, the combined teachings of *Alb, Hiroshima*, *Barlev* and *Gfeller* do not teach all features of independent claim 1, as amended, from which claim 7 depends. *Alb, Hiroshima*, *Barlev* and *Gfeller* do not disclose, teach or suggest Applicants' claimed optical network system which comprises at least "an identification mechanism that identifies the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

*Bremer* is cited for its alleged disclosure of a network management system used by a technician to target communication links that would benefit the most from power and/or data rate adaptation. *Bremer* specifically teaches shifting from one data rate to another next lowest data rate in a table of data rates in response to a measured signal-to-noise ratio. Applicants respectfully submit that *Bremer* does not add anything to the combination of *Alb, Hiroshima*, *Barlev* and *Gfeller* that would remedy the aforementioned deficiency.

Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness for at least the reason that the combined teachings do not teach all features of dependent claim 8, which depends directly from claim 1 and includes all the features of claim 1. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of dependent claim 7 under 35 U.S.C. § 103 are respectfully requested.

**6. Claim 11**

Applicants' dependent claim 11 includes at least one feature that is not found in the proposed combination. Specifically, dependent claim 11 depends directly from claim 9, which includes at least the step of "identifying the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

As shown above, the combined teachings of *Alb, Hiroshima*, *Barlev* and *Gfeller* do not teach all features of independent claim 9, as amended, from which claim 11 depends. *Alb, Hiroshima*, *Barlev* and *Gfeller* do not disclose, teach or suggest Applicants' claimed method which comprises at least the step of "identifying

the rate adaptive system as such when the rate adaptive system is introduced to an optical fibre-based communication network."

*Bremer* is cited for its alleged disclosure of a network management system used by a technician to target communication links that would benefit the most from power and/or data rate adaptation. *Bremer* specifically teaches shifting from one data rate to another next lowest data rate in a table of data rates in response to a measured signal-to-noise ratio. Applicants respectfully submit that *Bremer* does not add anything to the combination of *Alb, Hiroshima*, *Barlev* and *Gfeller* that would remedy the aforementioned deficiency.

Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness for at least the reason that the combined teachings do not teach all features of dependent claim 11, which depends directly from claim 9 and includes all the features of claim 9. Consequently, for at least this reason, favorable reconsideration and withdrawal of the rejection of dependent claim 11 under 35 U.S.C. § 103 are respectfully requested.

## CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that pending claims 1, 3, 5-9, 14 and 15 are allowable over the cited art of record and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comments regarding the Applicants' response, Applicants request that the Examiner telephone Applicants' undersigned attorney.

Respectfully submitted,

**SENTRY LAW GROUP**

By: /Robert A. Blaha/
Robert A. Blaha
Registration No. 43,502
(770) 709–0069